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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/934,770	08/22/2001	Philipp G. Kornreich	270_094CIPofDIV	9281

20874 7590 01/10/2005  
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SYRACUSE, NY 13202

EXAMINER

HOFFMANN, JOHN M

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/934,770

Applicant(s)

KORNREICH ET AL.

Examiner

John Hoffmann

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2004 and 18 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term “flow range” is indefinite as to its meaning. First it is noted that there is no definition for this term in the specification. Second, Examiner could find no definition for this in the glass art. Third when the term “flow range” is used in the prior art, it pertains to a range of flow rates – it doesn’t relate to a range of temperatures. For these reasons, it is deemed that a potential infringer would be unable to determine what is meant by “flow range” and thus would not be able to reasonably determine if he is or is not infringing on the present claims.

The claims require the glass have “an overlapping flow range”. It is unclear if that means that they have the same range and it overlaps with something else (if so, with what do they overlap?) Or if it means each glass has its own range, and the two overlap.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-2 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for certain semiconductors (see Krol 5838868, col. 3, lines 29-30) and certain rare-earth-containing compounds, does not reasonably provide enablement for all other materials (see claim 1 which is open to all materials and claim 2 which is open to metals, ferrite, etc). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention the invention commensurate in scope with these claims.

The MPEP sets forth what must be considered to establish whether the enablement requirement is met.

#### **2164.01(a) Undue Experimentation Factors**

There are many factors to be considered when determining whether there is sufficient evidence to support a determination that a disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue." These factors include, but are not limited to:

- (A) The breadth of the claims;
- (B) The nature of the invention;
- (C) The state of the prior art;
- (D) The level of one of ordinary skill;
- (E) The level of predictability in the art;
- (F) The amount of direction provided by the inventor;
- (G) The existence of working examples; and
- (H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

Examiner considered all of the above factors. The relevant considerations are as follows: (A) Claim 1 is open to all materials – including organics, Claim 2) is essentially all materials except organics. These claims are extremely broad.

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C) . Prior art recognizes the importance of amplification and recognizes only a handful of materials that permit amplification. The prior art does not recognize any metal, alloy or ferrite that will permit amplification.

E) Examiner is not aware of any sort of predictability in metals or ferrite which can be used to create an amplifying fiber.

(F) Applicant provides no guidance in how to use any ferrite or metal to create an amplifying fiber.

G) The sole working example (i.e. directed to amplification) is not directed to metal or ferrite.

H) The quantity of experimentation is extreme. One would literally have to test every conceivable metal and alloy to be able to make and use the invention.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Howard 4575187.

See claims 1-2 and col. 6, lines 55-56 of Howard. Since Howard does the same thing applicant does (has a metal layer between the core and the cladding), one would

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expect that one gets the same results. As to the flow point requirement, page 11 lines 16-17 of the present specification, Applicant indicates that the flow point “must” be below the flow range so as to make and use the invention. Since Howard obtains the containing fiber that applicant gets, the flow limitations must have been met. As to the other similar effects – it is not indicated as to what way the effects must be similar. It is deemed that the Howard polarization (col. 5, lines 49-62) is a similar effect in that it changes the nature of the light signal that is put into it.

As to the amplification limitation. It is deemed that one could use the Howard fiber by conducting electricity down the length of the metal layers, and that the electricity could be used to amplify light with some further amplifying device. It is noted that metals absorb/reflect light; they do not transmit light. It appears that the only way that applicant’s invention (use of metal in claim 2) can amplify light is by such a mode (conduction of electrical power). But even if there are other ways to amplify light, it is clear that Howard could amplify light by that mode.

Alternatively, it is deemed that Howard’s film can effect amplification to the same degree that Applicant’s metals/alloys can effect amplification.

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by DiGiovanni 5058976.

**An optical fiber formed by a method which comprises: (a) providing a preform having a glass core,**

Looking at figures 3-4 of DiGiovanni, 25 and/or 26 comprise the core

**a substantially homogeneous coating of a light interactive material over said glass core**

See coating 24.

**and a glass cladding over said coating of said light interactive material,**

21, 22 and 23 comprise the cladding

**with said glasses having an overlapping flow range and said coating material having a flow point which lies below the flow range of said glasses with said flow range being in the range of about 600-1500 C; and**

As per page 4, lines 16-23 of applicant's specification, silica has the claimed flow range. See col. 10, lines 26-27 of DiGiovanni which shows the use of silica. One would expect the same flow ranges.

As to the flow point requirement, page 11 lines 16-17 of the present specification, Applicant indicates that the flow point "must" be below the flow range so as to make and use the invention. Since DiGiovanni obtains the containing fiber that applicant gets, the flow limitations must have been met.

**(b) heating said preform to an elevated temperature and drawing a fiber from said preform at the flow temperature of said glasses, whereby said fiber has a substantially continuous film of said light interactive material formed between said core and cladding throughout the entire length of the said fiber, whereby said coating material strongly interacts with light in the core to effect amplification.**

See DiGiovanni's Abstract which discloses the fiber is an amplification fiber. It is deemed that the material is continuous because there is no indication to the contrary.

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Since DiGiovanni does essentially the same thing that Applicant does, one would expect that the film to be continuous. The heating is inherent because it is the only way to draw a fiber from a preform.

Claim 2 is substantially the same as claim 1, but it further limits the type of material. The DiGiovanni material is a ceramic material: Er-doped silica.

### ***Response to Arguments***

Applicant's arguments filed 10/18/04 have been fully considered but they are not persuasive.

It is argued that Howard does not teach having a substantially continuous film. But there is no explanation to support this assertion. Perhaps it is applicant's position is that there is no film that is continuous in a circumferential manner. This is not very important, because the claim does not specify that the film must be continuous in a circumferential manner. It is clearly continuous along the length of the fiber.

Alternatively, one can look at the Howard films as being 4 separate continuous films. It is noted that Applicant's fiber is disclosed as being cut up into 200,000 segments. Clearly the film is no longer continuous when it is cut up. Yet, it would be proper to see the result as being 200,000 separate films which are each continuous.

Applicant has failed to point out a specific error in the rejection and/or show how any of the claim limitations define over the Howard fiber. There is only an allegation of such.



Regarding the "flow range", Applicant refers to pages 4-5 of the specification "where it is specifically stated that the flow ranges of the glasses overlap". This essentially highlights one of the reasons why Examiner made the original rejection (and presently maintains it). The claims (as well as the passage) do not refer to "ranges"; Applicant's arguments regarding "ranges" do not address what is meant by the single "range" of the claims.

Applicant argues that there is support for the claim language; this is not very relevant, because the rejection is based on the meaning of the limitation, not whether there is support for it. Most importantly, the arguments fail to address the reasons/rationale used in the rejection; the arguments fail to point out how pages 4-5 address the reasons/rationale; there is no indication as to any error the Office made in determining that the claims were indefinite.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

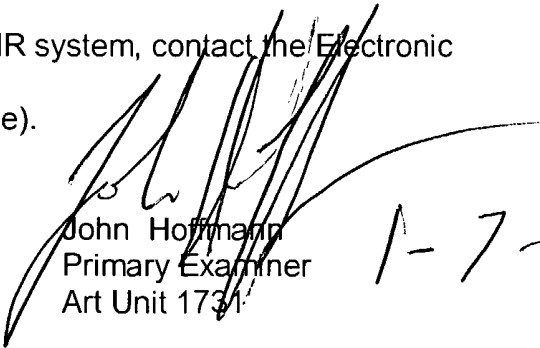
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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John Hoffmann  
Primary Examiner  
Art Unit 1731

1-7-04

jmh